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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,208	02/24/2004	Martin Kienbock	87433.2522	9239

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EXAMINER

BUSHEY, CHARLES S

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,208

Applicant(s)

KIENBOCK ET AL.

Examiner

Scott Bushey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2-4, and 6-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Specifically, independent claim 11, as amended, now recites that each of the sidewalls, the pipes extending from the sidewalls, the plurality of nozzles connected to the pipes, and the cooling media inserts are all "entirely formed of plastic", which plastic contains a biocide additive. On the other hand, the specification, as originally filed (note specifically pages 2-4 of the specification, the abstract and the original claims), recites that the internal components of the cooling tower, including the pipes, nozzles, cooling inserts, return channels and collectors, "advantageously *consist essentially of plastic*", to which an additive that acts as biocide is admixed in order to avoid or delay biological soiling. Clearly, this is not commensurate with the components being formed "entirely of plastic". This is a new matter rejection.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-4, 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al taken together with Kostyniak et al.

Johnston et al (col. 3, line 63 through col. 4, line 2; col. 8, lines 8-11, and 20; col. 30, lines 28-39, 63-67; claim 13) disclose forming the fill materials used in the wet/moist area of a cooling tower from PVC or other thermoplastic materials that are impregnated with antimicrobial agents during their molding to prevent the growth of algae and/or bacteria within the cooling tower. Johnston et al, however, fails to specifically disclose providing various other internal structures within the cooling tower, such as the pipes, nozzles, and sidewalls with the antimicrobial characteristics.

Kostyniak et al (col. 8, lines 54-67) suggest providing polymeric coatings for coating any surface within a cooling tower to kill or inhibit the growth of bacteria therein. It would have been obvious for an artisan at the time of the invention, to include an antimicrobial surface on any or all surfaces within the cooling tower as taught by Johnston et al, in view of the suggestion by Kostyniak et al, since such would totally prevent microbial growth within a cooling tower structure. Clearly one having ordinary skill in the art would recognize that allowing certain tower internals, such as pipes and nozzles, to go untreated by the antimicrobial agents would defeat the whole purpose of the reference disclosures by allowing the propagation of dangerous pathogens, such as *Legionella pneumophila*, which causes Legionaire's disease.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the reference combination as applied to claims 2-4, 6-8, 10, and 11 above, and further in view of Yaeger et al.

The reference combination as applied above to claims 2-4, 6-8, 10, and 11, substantially discloses applicant's invention as recited by instant claim 9, except for the specific recitation that the additives are in the form of noble metals or noble metal compounds. Applicant should note that the Johnston et al reference (col. 4, lines 1-2) does disclose the use of metallic particles as additives.

Yaeger et al (paragraphs [0081] and [0082]) disclose that it is known to use noble metal compounds, such as titanium oxides, as an additive impregnated within a polymeric compound to prohibit the growth of algae, bacteria, and other microorganisms. It would have been obvious for an artisan at the time of the invention,

to select a noble metal compound as the chosen antimicrobial additive within the cooling tower internals of the primary reference combination, in view of the teaching by Yaeger et al, since the toxicity of the noble metallic compounds is known to be low, while providing the desired antimicrobial characteristics.

Response to Arguments

7. Applicant's arguments filed February 21, 2006 with the After Final amendment and entered in view of the RCE filed March 17, 2006 have been fully considered but they are not persuasive.

Applicant's arguments drawn to the rejection based upon Johnston et al taken together with Kostyniak et al are not persuasive, since they are based upon the premise that the reference combination fails to suggest forming the claimed components of the cooling tower "entirely from plastic", which in turn contains a biocide additive. As stated in paragraph 2 above, applicant's original disclosure does not support the claims as now recited. Accordingly, this line of argument is moot.

With respect to applicant's arguments drawn to the rejection of claim 9, such are not persuasive. Specifically, applicant argues that the Examiner is impermissibly picking and choosing disclosure from Yaeger et al without identifying teachings within the references themselves to support the combination.

As stated above, Johnston et al clearly teaches forming the fill materials used in the wet/moist area of a cooling tower from PVC or other thermoplastic materials that are impregnated with antimicrobial agents during their molding to prevent the growth of algae and/or bacteria within the cooling tower. Johnston et al, however, fails to

specifically disclose providing various other internal structures within the cooling tower, such as the pipes, nozzles, and sidewalls with the antimicrobial characteristics.

Kostyniak et al (col. 8, lines 54-67) suggest providing polymeric coatings for coating any surface within a cooling tower to kill or inhibit the growth of bacteria therein. It would have been obvious for an artisan at the time of the invention, to include an antimicrobial surface on any or all surfaces within the cooling tower as taught by Johnston et al, in view of the suggestion by Kostyniak et al, since such would totally prevent microbial growth within a cooling tower structure.

Furthermore, Johnston et al reference (col. 4, lines 1-2) does disclose the use of metallic particles as additives.

Yaeger et al (paragraphs [0081] and [0082]) disclose that it is known to use noble metal compounds, such as titanium oxides, as an additive impregnated within a polymeric compound to prohibit the growth of algae, bacteria, and other microorganisms. Clearly, all of the references support a common goal, that of providing contact structures with antimicrobial materials incorporated therein so as to avoid growth of mold and algae within the contact apparatus. The allegation that the Examiner is impermissibly picking and choosing from the disclosures of the references is not well taken, since each of the references share the stated common goal, and Yaeger et al simply discloses the well known antimicrobial ability of the metallic oxides, such as titanium oxide.

Conclusion


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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Bushey
Primary Examiner
Art Unit 1724


3-30-06

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